

Claims

- [c1] 1. On a cord for supplying power to an appliance, the cord having a first wire, a second wire, and a ground wire, the appliance having leads and having a metal portion with an aperture defined therein, a plug comprising:
- a first portion capable of receiving the leads from the appliance;
 - a second portion connected to the cord and capable of engaging an outside surface of the metal portion adjacent the aperture;
 - connective members housed within the plug, being electrically connected to the first and second wires, and capable of electrically connecting to the leads received in the first portion; and
 - a conductive member electrically connected to the ground wire and capable of contacting the metal portion.
- [c2] 2. The plug of claim 1, wherein the appliance is a food waste disposer.
- [c3] 3. The plug of claim 1, wherein the cord has a third wire, and wherein a connective member electrically connects the third wire to the corresponding lead.
- [c4] 4. The plug of claim 1, wherein the connective members comprise push-in terminals capturing conductive ends of the

leads.

- [c5] 5.The plug of claim 4, wherein the push-in terminals comprise a mechanism for releasing the conductive ends of the leads.
- [c6] 6.The plug of claim 1, wherein the plug defines a shoulder between the first and second portions.
- [c7] 7.The plug of claim 6, wherein the conductive member is a ring located at the shoulder.
- [c8] 8.The plug of claim 1, wherein the first portion is capable of engaging an inside surface of the metal portion adjacent the aperture.
- [c9] 9.The plug of claim 8, wherein the first portion contains at least one retainer capable of securing the plug within the aperture.
- [c10] 10.The plug of claim 9, wherein the at least one retainer comprises tabs located about the periphery of the first portion, the tabs being capable of insertion through slots defined in the aperture.
- [c11] 11.The plug of claim 10, wherein the tabs are engaged to the inside surface by rotating the plug.
- [c12] 12.The plug of claim 11, wherein the conductive member comprises detents that dispose within the slots when the plug is rotated.

- [c13] 13.The plug of claim 1, wherein the conductive member has a hole or slot for fastening the conductive member to the metal portion.
- [c14] 14.The plug of claim 1, wherein the conductive member comprises a body capable of biased engagement with the metal portion.
- [c15] 15.The plug of claim 14, wherein the conductive member is capable of simultaneously engaging the inside surface and the outside surface of the metal portion.
- [c16] 16.The plug of claim 14, wherein the conductive member is capable of simultaneously engaging the inside surface of the metal portion, the outside surface of the metal portion, and the edge of the aperture.
- [c17] 17.The plug of claim 14, wherein the conductive member is capable of simultaneously engaging the inside surface of the metal portion and the edge of the aperture.
- [c18] 18.On a cord for supplying power to an appliance, the cord having a first wire, a second wire, and a ground wire, the appliance having leads and having a metal portion with an aperture defined therein, a plug comprising:
 - a receiving portion capable of receiving the conductive ends of the leads;
 - connective members housed within the plug, the

connective members being electrically connected to the first and second wires and capable of capturing the conductive ends; and

a conductive member being electrically connected to the ground wire and capable of engaging the metal portion.

- [c19] 19.The plug of claim 18, wherein the appliance is a food waste disposer.
- [c20] 20.The plug of claim 18, wherein the cord has a third wire, and wherein a connective member electrically connects the third wire to the conductive end of the corresponding lead.
- [c21] 21.The plug of claim 18, wherein the connective members comprise a mechanism for releasing the conductive ends of the leads.
- [c22] 22.The plug of claim 18, wherein the conductive member is a ring positioned on the exterior surface of the plug.
- [c23] 23.The plug of claim 18, further comprising at least one retainer capable of securing the plug within the aperture.
- [c24] 24.The plug of claim 18, wherein the conductive member comprises a body capable of biased engagement with the metal portion.
- [c25] 25.The plug of claim 24, wherein the conductive member is capable of simultaneously engaging the inside surface and the

- outside surface of the metal portion.
- [c26] 26.The plug of claim 24, wherein the conductive member is capable of simultaneously engaging the inside surface of the metal portion, the outside surface of the metal portion, and the edge of the aperture.
- [c27] 27.The plug of claim 24, wherein the conductive member is capable of simultaneously engaging the inside surface of the metal portion and the edge of the aperture.
- [c28] 28.The plug of claim 18, wherein the conductive member is a ring terminal attachable to the metal portion using a fastener.
- [c29] 29.On a cord for supplying power to an appliance, the cord having a first wire, a second wire, and a ground wire, the appliance having leads and having a metal portion with an aperture defined therein, a plug comprising:
connective members housed within the plug, the connective members being electrically connected to the first and second wires and capable of capturing the conductive ends of the leads;
a first portion of the plug capable of insertion through the aperture and comprising openings to receive the leads from the disposer;
a second portion of the plug defining a shoulder with the first portion;

- at least one retainer for securing the plug within the aperture;
and
a conductive member electrically connected to the ground wire
and capable of biased engagement with the metal portion.
- [c30] 30.The plug of claim 29, wherein the appliance is a food waste disposer.
- [c31] 31.The plug of claim 29, wherein the cord has a third wire, and wherein a connective member electrically connects the third wire to the conductive end of the corresponding lead.
- [c32] 32.The plug of claim 29, wherein the connective members comprise a mechanism for releasing the conductive ends of the leads.
- [c33] 33.The plug of claim 29, wherein the conductive member is a ring positioned on the exterior surface of the plug.
- [c34] 34.The plug of claim 29, wherein the at least one retainer engages an inside surface of the metal portion adjacent the aperture.
- [c35] 35.The plug of claim 29, wherein the conductive member is capable of simultaneously engaging the inside surface and the outside surface of the metal portion.
- [c36] 36.The plug of claim 29, wherein the conductive member is capable of simultaneously engaging the inside surface of the

metal portion, the outside surface of the metal portion, and the edge of the aperture.

- [c37] 37.The plug of claim 29, wherein the conductive member is capable of simultaneously engaging the inside surface of the metal portion and the edge of the aperture.
- [c38] 38.The plug of claim 29, wherein the conductive member is a ring terminal attachable to the metal portion using a fastener.
- [c39] 39.A method for assembling a power cord on an appliance, the power cord having a first wire, a second wire, and a ground wire, the appliance having leads and having a metal portion with an aperture defined therein, the method comprising:
 - a)housing wire ends of the first and second wires in a plug;
 - b)electrically connecting the ground wire to an outside portion of the plug;
 - c)electrically connecting the leads to the wire ends; and
 - d)mechanically engaging the plug to the metal portion adjacent the aperture.
- [c40] 40.The method of claim 39, wherein the cord has a third wire whose end is housed within the plug.
- [c41] 41.The method of claim 39, wherein step (d) grounds the appliance.

- [c42] 42. The method of claim 39, wherein step (c) comprises receiving ends of the leads inside the plug and connecting the lead ends with connective members attached to the wire ends.
- [c43] 43. The method of claim 39, wherein step (d) comprises engaging the plug with the inside surface and the outside surface of the metal portion adjacent the aperture.
- [c44] 44. The method of claim 39, wherein step (d) further comprises inserting the plug into the aperture and rotating the plug within the aperture.
- [c45] 45. The method of claim 39, wherein step (d) comprises engaging tabs disposed on the plug with the inside surface of the metal portion of the metal portion adjacent the aperture, and engaging a shoulder on the plug against an outside surface of the metal portion.
- [c46] 46. The method of claim 39, wherein the ground wire is electrically connected to a conductive member located on the outside surface of the plug.
- [c47] 47. The method of claim 46, wherein the conductive member simultaneously engages the inside surface and the outside surface of the metal portion.
- [c48] 48. The method of claim 46, wherein the conductive member simultaneously engages the inside surface of the metal

portion, the outside surface of the metal portion, and the edge of the aperture.

[c49] 49.The method of claim 46, wherein the conductive member simultaneously engages the inside surface of the metal portion and the edge of the aperture.

[c50] 50.A method for grounding an appliance, the power cord having a first wire coupled to a first terminal within a plug, a second wire coupled to a second terminal within the plug, and a ground wire coupled to a conductive member located on the outside surface of the plug, the appliance having a first lead and a second lead and a metal portion with an aperture defined therein, the method comprising:

- a)respectively coupling the first and second leads to the first and second terminals; and
- b)inserting an end of the plug into the aperture, whereby such insertion brings the conductive member into biased engagement with the metal portion.

[c51] 51.A method for assembling a power cord on an appliance, the power cord having a first wire coupled to a first terminal within a plug, a second wire coupled to a second terminal within the plug, and a ground wire, the appliance having a first lead and a second lead and a metal portion with an aperture defined therein, the method comprising:

- a)respectively coupling the first and second leads to the

first and second terminals;

- b)fastening the ground wire to the metal portion;
- c)inserting an end of the plug into the aperture; and
- d)rotating the end of the plug so as to affix the plug within the aperture.